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NORTH PACIFIC OCEAN

By WILLIS E. HURD

Extraordinary conditions of pressure prevailed over a considerable part of the North Pacific Ocean during January, 1926. Abnormally high pressure covered the China coast and adjacent waters. Cyclonic storms entering the ocean from Japan were strengthened by the considerable gradient existing between their centers and the neighboring anticyclone, and in consequence developed more than usual energy. The anticyclone off the coast of California was weaker than normal. It persisted in a more or less restricted area during about three-fourths of the month, until by the 25th little was left of it except a meager coastal belt off extreme southern California and the adjacent peninsula, and even this had disappeared by the 31st.

The Aleutian Low probably never in recent years was so persistent and highly developed as in this month. Its center fluctuated considerably along the fiftieth parallel, but over its entire usual area pressure continued unbrokenly low, and on several days cyclonic conditions prevailed over the whole sea between northern Japan and British Columbia. The average center was located near Dutch Harbor, where the unprecedentedly low mean of 29.06 inches was found, this being more than a half inch below the normal. Even as far north as Nome the negative pressure departure was as great as 0.38. At Dutch Harbor, St. Paul, and Kodiak no pressure readings as high as 30 inches were recorded, and the same was true of Nome, except on the 21st and 22d.

The following table illustrates these conditions:

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level at indicated hours, North Pacific Ocean, January, 1926

	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	Inches	Inches		Inches	
Dutch Harbor ^{1 2}	29.06	-0.59	29.80	16th	28.30	25th
St. Paul ¹	29.29	-0.40	29.98	16th	28.72	26th
Kodiak ¹	29.27	-0.37	29.76	19th	28.66	³ 5th
Midway Island ¹	29.96	-0.04	30.16	14th	29.78	³ 11th
Honolulu ³	30.02	+0.02	30.11	12th	29.85	18th
Juneau ³	29.76	-0.12	30.22	9th	29.02	16th
Tatoosh Island ^{3 4}	30.09	+0.15	30.69	6th	29.37	16th
San Francisco ^{3 4}	30.16	+0.07	30.48	5th	29.47	31st
San Diego ^{3 4}	30.09	+0.03	30.35	5th	29.72	31st

¹ P. m. observations only.

² 30 days.

³ A. m. and p. m. observations.

⁴ Corrected to 24-hour mean.

⁵ And other dates.

In the American Tropics vessels experienced gales off Cape Corrientes on the 1st and 29th, and in the Gulf of Tehuantepec on the 1st, 9th, 10th, 23d, and 27th, those in the latter region being northers blowing down from the Cordilleras.

At Honolulu the winds were generally light, prevailing as usual from the east, and with a maximum velocity for the month of only 33 miles an hour, from the northeast, on the 21st.

Very little fog was reported except along the American coast between the thirtieth and fiftieth parallels, and over the southern part of the Gulf of Alaska. The only record of fog occurring in east longitudes comes from the China Sea, where it was observed on the 14th about midway between Hongkong and Manila.

The consequences of the low-pressure conditions upon the weather were increased cloudiness and precipitation, as well as increased warmth, considering the normal, over a great area. Juneau reported the warmest January in 31 years of record; North Head, Wash., next to the warmest in 38 years; and Honolulu the warmest in 37 years. A number of trans-Pacific steamers reported much rain, snow, or hail along the northern passages.

As might be expected gales were frequent over most of the ocean north of the thirtieth parallel, and on that parallel a near hurricane wind was experienced by a steamer on the 9th, near 152° east longitude. Storm to hurricane velocities experienced elsewhere, so far as reported, occurred on the 4th near 45° N., 170° E.; on the 25th near 35° N., 155° W.; and on the 26th and 29th near 35° N., 140° W. Perhaps the stormiest five-degree square of the ocean was that bounded by the thirty-fifth and fortieth parallels north, and the one hundred and fortieth and one hundred and forty-fifth meridians west, with gales on at least 25 per cent of the days. The days on which gales simultaneously covered the most widespread areas east and west of the one hundred and eightieth meridian were the 29th to the 31st.

Lows entered the American mainland on the 1st, 5th, 8th, 10th, 14th, 16th, 24th, 28th, and 31st, the last one by way of northern California and Oregon; the others at higher latitudes.

TROPICAL CYCLONES OF JANUARY, 1926

South Pacific Ocean.—A disastrous hurricane passed over Samoa on January 1, striking principally, it seems, the American island, where villages and crops were reported in many instances as completely destroyed, and roads in places as blocked by landslides and fallen trees. A food famine was reported imminent. So far as known no lives were lost. At Tutuila the barometer began to fall at an early hour. Light easterly breezes increased in velocity to a fresh gale, and finally, at 3 and 4 o'clock in the afternoon, to a full hurricane. At 4:05 p. m. the wind dropped to a calm and so remained for about 30 minutes, when it was followed by east to east-northeast winds of moderate to gale force until 8 p. m., after which there were gentle variable breezes. The lowest pressure was 28.75 inches.

Indian Ocean.—Between January 30 and February 2 a tropical cyclone hit the island of Madagascar. The village of Vapomandry was destroyed, and a tidal wave came into the port of Tamatave, on the east coast. So far as known there was only one fatality. No data are at hand regarding the severity of the storm at sea.— *W. E. Hurd.*